

SN 09/396,429
Page 12 of 22

REMARKS

This application was finally rejected by the Examiner in the Examiner's Action mailed on February 13, 2004. An Amendment After Final Rejection in Accordance with 37 C.F.R. §1.116 was filed on August 4, 2004. A Notice of Appeal was also filed on August 4, 2004. The Applicants respectfully request that the Notice of Appeal be disregarded in view of this Preliminary Amendment and Applicants' Request for Continued Examination.

By this amendment, Applicants have amended claims 10 and 51, claims 11-13, 15, 20-22, and 44 have been canceled, and new claims 60-65 have been added. It is respectfully submitted that no new matter has been added, and the claims are fully supported by the specification.

In view of the amendments presented above and the following discussion, the Applicants submit that the Examiner's 35 U.S.C. §112 and 35 U.S.C. §103 rejections in the final Action mailed on February 13, 2004 are moot, none of the claims pending in the application are indefinite or obvious under the respective provisions of 35 U.S.C. §112 and §103, and all of the claims are now in allowable form. Therefore, the Applicants respectfully submit that the Examiner's rejections should be withdrawn.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

REJECTIONS

I. 35 U.S.C. §112

The Examiner has rejected claims 10-13, 15, 20-22, 44, and 51-54 under 35 U.S.C. §112 for failing to comply with the written description requirement. The Applicants respectfully traverse the rejections.

SN 09/396,429
Page 13 of 22

A. Claims 11-13, 15, 20-22, and 44

The Applicants have canceled claims 11-13, 15, 20-22, and 44. Therefore, the rejections regarding these claims are now deemed moot.

B. Claim 10

The Applicants have amended claim 10 to further clarify the features the Applicants consider as being inventive. In particular, claim 10, as amended, recites:

"The hardware upgrade of claim 1 wherein the interface to the terminal comprises:

interactive software stored in memory of said hardware upgrade to provide enhanced functional capabilities for the set top terminal; and processing circuitry to process said subscriber inputs associated with said interactive software." (emphasis added).

Support for the claimed features may be found in the Applicants' specification beginning on page 34, lines 1-11, and FIG. 12a. The Applicant submit that no new subject matter has been added, and that claim 10 satisfies the requirements under 35 U.S.C. §112 and is patentable thereunder. Therefore, the Applicants respectfully request that the rejection be withdrawn.

C. Claims 51-57

The Applicants have amended claim 51 to further clarify the features the Applicants consider as being inventive. In particular, claim 51, as amended, recites:

"The method of claim 42 further comprising:
providing a second upgrade to said set top terminal for storing digital data on a storage device." (emphasis added).

Support for the claimed features may be found in the Applicants' specification beginning on page 36, lines 26-28. The Applicant submit that no new subject matter has been added, and that claim 51 satisfies the requirements under 35 U.S.C. §112 and is patentable thereunder. Furthermore, claims 52-57 depend, either directly or indirectly, from claim 51 and recite additional features thereof. As such and at least for

SN 09/396,429
Page 14 of 22

the same reasons discussed above, the Applicants submit that these dependent claims also satisfy the requirements under 35 U.S.C. §112 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejection be withdrawn.

II. 35 U.S.C. §103

A. Claims 1, 3-9, 14, 16, 18-19, and 23-29

The Examiner has rejected claims 1, 3-9, 14, 16, 18-19, and 23-29 as being obvious under 35 U.S.C. §103 over Graczyk et al. (U.S. patent no. 5,192,999, issued March 9, 1993, hereinafter "Graczyk") in view of Banker et al. (U.S. patent no. 5,357,276, issued October 18, 1994, hereinafter "Banker"), Palazzi, III et al. (U.S. patent no. 5,327,554, issued July 5, 1994, hereinafter "Palazzi"), and in further view of Granger (U.S. patent no. 5,483,277, issued January 9, 1996). The Applicants respectfully traverse the rejections.

Applicants' independent claim 1 (and similarly independent claims 14 and 24) recites:

1. "A hardware upgrade for a set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus, the hardware upgrade comprising:
an interface to the set top terminal for receiving and processing subscriber input;
a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input; and
a microprocessor connected between the interface and the modem, wherein the hardware upgrade is a card insertable into the set top terminal and downloads data from the one or more headends to a local storage." (emphasis added).

The test under 35 U.S.C. § 103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added).

312000-1

SN 09/396,429
Page 15 of 22

Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. *In re Wright*, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added).

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494 496 (C.C.P.A. 1970), M.P.E.P. 2143.03. Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

In particular, the Graczyk reference discloses a work station 10 formed by a host computer such as an IBM PC-AT compatible system having common communication circuitry within the work station 10 that includes data/fax/voice modem circuit 44, television circuit 46, AM/FM tuner circuit 48, and remote control circuit 50. The telecommunication circuitry 12 provides the user with the ability to send and receive computer data, facsimile transmissions and voice and audio sound over one or more conventional telephone lines. Host computer bus interface 300 provides a communications path between data/fax/voice modem 44 and host computer 24. Consequently, IBM PC-AT compatible industry standard architecture (ISA) interface specifications define the technical requirements for host computer bus interface 300. The data/fax/voice modem circuit 44 is configured to appear to the host computer as a communication circuit. Accordingly, the Graczyk reference discloses a computer workstation that includes a conventional PC computer having a data/fax/voice modem circuit disposed therein. (see Gracyzk, Col. 5, lines 15-25, lines 38-51, lines 62-67, Col. 6 lines 33-48, and lines 62-Col. 7, Line 18, and FIGs. 1 and 2).

The Banker reference discloses that a set top terminal may include a modem and telephone link to a telephone processor at the head end. (see Banker, Col. 4, Lines 40-50). It is noted that the Banker reference is completely silent with regard to

SN 09/396,429
Page 16 of 22

whether the modem is installed in the subscriber terminals as a hardware upgrade to the subscriber terminals.

The Palazzi reference discloses "the terminal 17 also features an internal modem 4 so that the terminal 17 may communicate and transmit information to and from the host database via the subscriber's telephone line 1. The modem 4 may carry asynchronous or synchronous data from the subscriber's telephone line 1 and through the DAA, where it is then converted to digitally encoded information for use by the CPU5 (described below). Alternatively, the modem 4 will convert the digital information presented from the CPUS into low frequency analog signals for the DAA to transmit to the host database via the subscriber's telephone line 1" (see Palazzi, Col. 5, Line 63 to Col. 6, Line 6). Nowhere in the Palazzi reference is there any teaching or suggestion that the modem is installed into the subscriber's terminal as a hardware upgrade.

The Granger reference discloses "for subscribers who want to operate more than two simultaneous channels from among the six, the set-top can be designed in such a way that a switching module can be plugged into a slot at the rear of the set-top converter as shown in Fig. 6. There, a switching module 300 may be purchased separately and plugged into a standard set-top converter 302 having a block diagram as shown in Fig. 7. Also shown in Fig. 7 is a block diagram of the switching module 300 of Fig. 6. (see Granger, Col. 7, Lines 16-24, FIGs. 6 and 7). Nowhere in the Granger reference is there any teaching or suggestion of hardware upgrade comprising a modem.

Even if the four references could somehow be operably combined, the combination would merely disclose set top terminals having a modem installed at the original equipment manufacturer (OEM), a switching module for operating more than two simultaneous channels that may be installed as an upgrade to the set top terminal, and a work station capable of being upgraded with a modem. Nowhere in the cited references is there any teaching or any suggestion that a hardware upgrade for a set top terminal may include modem.

Specifically, the set top terminals of the Banker and Palazzi references include modems that were installed during initial manufacture. Furthermore, the Granger reference merely discloses that an upgrade may include a switching module, as

SN 09/396,429
Page 17 of 22

opposed to a modem. Furthermore, the Graczyk reference discloses that the modem upgrade is provided for a work station, such as a IBM compatible personal computer (PC), as opposed to a set top terminal.

The Examiner has improperly combined the teachings of the Graczyk with the three other cited references. Specifically, at the time the invention was made, manufacturers of the set top terminals and, manufacturers of the workstations were considered completely distinct industries. That is, OEMs of the set top terminals did not manufacture workstations, and workstation and computer OEM manufacturers did not produce set top terminals. Nowhere in the cited references is there any teaching or suggestion that a hardware upgrade comprising a modem may be implemented in the set top terminals. Therefore, the combined references fail to teach or suggest the Applicant's invention as a whole.

Moreover, the combined references fail to address and solve the problems that the Applicant's invention solves. In particular, the combined references solve the problem of providing data/fax/voice communications via a modem by installing such modem during initial manufacture of the set top terminal. By contrast, the Applicant's invention solves the problem of providing the flexibility to upgrade the set top terminals with a modem to provide data/fax/voice communications on an as-needed basis. Furthermore, the Applicant's invention solves the problem of set top terminals becoming quickly obsolete because they do not have the capability to be upgraded, as improvements in technologies allow for additional services to be provided to the subscriber of the set top terminals. Accordingly, the combined references fail to address the problems addressed and solved by the Applicant's invention.

Furthermore, the mere fact that a prior art structure, such as a computer system having a modem upgrade, could be modified to produce the claimed invention does not make the modification obvious unless the prior art suggested desirability of the modification. None of the cited references, either singularly or in combination, teach or suggest "a hardware upgrade comprising a modem connected to the interface capable of communicating with one or more head ends, where the set top terminal receives television program signals based on the subscriber input." Therefore, the combined references fail to teach or suggest the Applicant's invention as a whole.

312000-1

SN 09/396,429
Page 18 of 22

As such, the Applicants submit that claims 1, 14, and 24 are not obvious and fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Furthermore, claims 3-9, 16, 18-19, 23, and 25-29 depend, either directly or indirectly, from independent claims 1, 14, and 24, and recite additional features thereof. As such, and for at least the same reasons discussed above, the Applicants submit that these dependent claims also fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

B. Claims 30-42, 45-50, 55, and 58-59

The Examiner has rejected claims 30-42, 45-50, 55, and 58-59 as being obvious under 35 U.S.C. §103 over Palazzi in view of Banker. The Applicants respectfully traverse the rejections.

Applicants' independent claim 30 (and similarly independent claim 42) recites:

30. "A television terminal having a microprocessor and microprocessor instructions for prompting generation of menus, the television terminal comprising:

a television program receiver;

a hardware upgrade comprising:

an interface to the television terminal for receiving and processing subscriber input;

a modem capable of communicating with one or more headends, wherein the television terminal receives television program signals based on the subscriber input; and

a microprocessor connected between the interface and the modem, wherein the modem downloads data from the one or more headends to a local storage; and

an output connected to the receiver and the modem, wherein the output accepts the television program signals from the receiver and data signals from the modem." (emphasis added).

In particular, the Banker references discloses that a set top terminal may include a modem and telephone link to a telephone processor at the head end. (see Banker, Col. 4, Lines 40-50). It is noted that the Banker reference is completely silent

SN 09/396,429
Page 19 of 22

with regard as to whether the modem is installed in the subscriber terminals as a hardware upgrade to the subscriber terminals.

Furthermore, the Palazzi reference fails to bridge a substantial gap as between the Banker reference and the Applicant's invention. Specifically, the Palazzi reference discloses "the terminal 17 also features an internal modem 4 so that the terminal 17 may communicate and transmit information to and from the host database via the subscriber's telephone line 1. The modem 4 may carry asynchronous or synchronous data from the subscriber's telephone line 1 and through the DAA, where it is then converted to digitally encoded information for use by the CPU5 (described below). Alternatively, the modem 4 will convert the digital information presented from the CPUS into low frequency analog signals for the DAA to transmit to the host database via the subscriber's telephone line 1" (see Palazzi, Col. 5, Line 63 to Col. 6, Line 6). Nowhere in the Palazzi reference is there any teaching or suggestion that the modem is installed into the subscriber's terminal as a hardware upgrade.

Even if the two references could somehow be operably combined, the combination would merely disclose a set top terminal having a modem installed during original equipment manufacture. Nowhere in the combined references is there any teaching or suggestion of "a hardware upgrade comprising a modem capable of communicating with one or head ends, wherein the television terminal receives television program signals based on the subscriber input." That is, the combined references are completely silent in regard to providing or enabling a set top terminal to receive a hardware upgrade including a modem that is capable of communicating with one or more headends. Therefore the combined references fail to teach or suggest the Applicant's invention as a whole.

As such, the Applicants submit that claims 30 and 42 are not obvious and fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Furthermore, claims 33-41, 45-50, 55, and 58-59 depend, either directly or indirectly, from independent claims 30 and 42, and recite additional features thereof. As such, and for at least the same reasons discussed above, the Applicants submit that these dependent claims also fully satisfy the requirements under 35 U.S.C. § 103 and are

SN 09/396,429
Page 20 of 22

patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

C. Claims 43-44 and 57

The Examiner has rejected claims 30-42, 45-50, 55, and 58-59 as being obvious under 35 U.S.C. §103 over Palazzi in view of Banker, and in further view of Vogel (U.S. patent no. 5,253,066, issued October 12, 1993). The Applicants respectfully traverse the rejections.

1. Claim 44

The Applicants have canceled claim 44. Therefore, the rejection regarding this claim is now deemed moot.

2. Claim 43 and 57

Claims 43 and 57 respectively depend from independent claim 42 and recited additional features thereof. In particular, claims 43 and 57 recite in part:

"A method for delivering television programs through a television program delivery system with menu selection of programs, comprising:
receiving a television program from one or more headends;
receiving subscriber input through an interface within a set top terminal, the set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus;
communicating through a modem with the one or more headends using a hardware upgrade inserted into the set top terminal, the hardware upgrade having the modem, and the communicating step comprising:
transmitting data based on the subscriber input;
receiving data from the one or more headends; and
downloading data from the one or more headends to a local storage using the hardware upgrade and the modem; and
displaying the television program and/or information based on the received data." (emphasis added).

As discussed above, the Palazzi and Banker references merely disclose the set top terminal having a modem installed during original equipment manufacture. Nowhere do the combined references teach or suggest "a hardware upgrade

SN 09/396,429
Page 21 of 22

comprising a modem capable of communicating with one or more headends, wherein the television terminal receives television program signals based upon the subscriber input."

Furthermore, the Vogel reference fails to bridge the substantial gap as between the Palazzi and Banker references, and the Applicant's invention. In particular, Vogel discloses "a signal representative of a television program guide, a signal indicating which program is currently being viewed or recorded and a signal indicating the class of program being viewed or recorded are received at the point of reception of a television program signal. The program guide signal is used to cause a program guide to be displayed on a television screen (see Vogel, Abstract).

Even if the three references could somehow be operably combined, the combination would merely disclose a set top terminal having a modem installed during original equipment manufacture, and the set top terminal receiving a signal representative of a television program guide, a signal indicating which program is currently viewed, and a signal indicating the class of the program being viewed. Nowhere in the combined references is there any teaching or suggestion of "communicating through a modem with one or more head ends using a hardware upgrade inserted into the set top terminal, the hardware upgrade having the modem." Therefore the combined references fail to teach or suggest the Applicant's invention as a whole.

As such, the Applicants submit that claims 43 and 57 are not obvious and fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

SN 09/396,429
Page 22 of 22

CONCLUSION

The Applicants believe all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of an adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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